

NEPOKUPNYY, I.M.; SIMANCHUK, V.K.

Connecting instruments to a high voltage line. Put' i put. khoz.
5 no. 1:33 Ja '61. (MIRA 14:5)

1. Nachal'nik Lozovskoy distantii (for Nepokupnyy). 2. Zamestitel'
nachal'nika uchastka energosnabzheniya, st. Lozovaya, Yuzhnoy dorogi
(for Simanchuk).

(Railroads—Electric equipment)

SRANCIK, Frantisek, inz.; LAPPERS, Anton, inz., CSc.

Effect of gibberellic acid on seed germination and on
seedling growth of some coniferous trees. Les cas 9 no.8:
727-736 Ag '63.

1. Ceskoslovenska akademie vied, Arboretum Slovenskej akademie
vied Mlynany.

CZECHOSLOVAKIA

František ŠIMONČEK and Anton LAFKUS, Arboretum of the Slovak Academy of Sciences (Arboretum Slovenskej akademie vied), Moyunov.

"Effect of Gibberellic Acid on the Seed Germination in *Thuja orientalis*."

Prerulawa, Biologie. Vol 18, No 1, 1963; pp 72-75.

Summary (German summary modified): Soaking of seeds of *Thuja orientalis* L. into aqueous solution containing 75 to 100 mg. gibberellin/L. increased the germinating energy and the number of germinating seeds (15% higher at 100 mg./L.). Table, 2 graphs; 1 Soviet, 2 Western, 1 Czech reference.

SIMANEK, Frantisek, inz.

Seed germination of some conifers is in relation to the rate of seed sinking in water. Les cas 11 no. 1:61-70 Ja '65.

1. Arboretum of the Slovak Academy of Sciences, Mlynany.
Submitted January 10, 1964.

SIMANCIK, Frantisek, inz.

Forestry problems at the international symposium on physiology,
biochemistry, and ecology of germination. *Ann. bot.* 10 no. 61
600-602 Je '64.

1. Arboretum, Czechoslovak Academy of Sciences, Mlynany.

SIMANDI, Janos

Pilots of Szombathely deserve their placing. Repules 15 no.2:
7 F '62.

1. Levelezo, szombathelyi repuloklub.

S/190/62/004/008/015/016
B101/B180

53832
53200
AUTHORS:

Tudós, F., Simandi, I.

TITLE:

Kinetics of inhibition of radical polymerization. v. Effect
of p-benzoquinone and its derivatives on the induced
polymerization of styrene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 8, 1962;
1271-1281

TEXT: The polymerization of styrene induced by azoisobutyric acid
dinitrile was conducted in the presence of benzoquinone, toluquinone,
o-xylorquinone, p-xylorquinone, trimethylp-benzoquinone, methoxyquinone, or
monochloro-p-benzoquinone at 50°C by methods described previously (MTA
KKKI Közleményei, no. 3, 5, 1959; ibid., no. 5, 13, 1961; Acta Chim.
Hung., 14, 417, 1958). The degree of conversion was determined
dilatometrically. The stoichiometric coefficient μ and the relative
reactivity k_1/k_2 of the inhibitors were calculated from equations derived
previously (MTA KKKI, Közleményei, no. 2, 51, 1959) (Table 2). Results:
Card 1/3

S/190/62/004/003/015/016
B101/E180

Kinetics of inhibition of radical ...

There is a strictly linear dependence between $\log k_3/k_2$ and the redox potential E^0 . The data for E^0 were taken from publications by D. E. Kvalnes (J. Amer. Chem. Soc., 56, 667, 670, 1934) and W. M. Clark (Oxidation-Reduction Potentials of Organic Systems. The Williams and Wilkins Co., Baltimore, 1960, 371). The slope of the straight line is aF/RT , where $a = 1/2$. Hence, this reaction is ideally symmetrical according to O. Dimroth (Angew. Chemie, 46, 571, 1933). The stoichiometric coefficient μ is lower than the theoretical value. It decreases as the number of substituents increases, its value depending on the position of the latter. Hence, part of the radicals formed from the inhibitor are assumed to react directly with the monomer and cause partial copolymerization of quinone and the monomer. $2/\mu$ inhibitor molecules join in with the chain which is in good agreement with data obtained by J. C. Bevington et al. (J. Chem. Soc., 1955, 2822). There are 4 figures and 2 tables.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut khimii
AN Vengrii, Budapesht (Central Scientific Research
Institute of Chemistry of the AS Hungary, Budapest)

Card 2/3

Kinetics of inhibition of radical ...

S/190/62/004/008/015/016
B101/B180

SUBMITTED: December 28, 1961

Table 2. Kinetic data of the inhibitors studied. Legend: (1) inhibitor; (2) benzoquinone; (3) toluquinone; (4) methoxyquinone; (5) p-xyloquinone; (6) o-xyloquinone; (7) monochloro-p-benzoquinone; (8) trimethyl-p-benzoquinone.

Инератор	μ	k_2/k_1	E°
BX 2	1,26	518 ± 25	0,711
TX 3	1,48	266 ± 15	0,653
MOX 4	1,08	193 ± 10	0,642
n-RX 5	1,05	82 ± 10	0,604
o-RX 6	0,70	120 ± 20	—
XX 7	1,10	720 ± 70	0,734
TMX 8	0,05	25 ± 5	0,527

Card 3/3

5.4300

S/190/62/004/009/012/014
B101/B144

AUTHORS: Tüdös, F., Simándi, L.

TITLE: Inhibition kinetics of radical polymerization. VI. Effect of p-xyloquinone on the initiated polymerization of styrene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 9, 1962, 1425-1430

TEXT: The inhibiting effect of p-xyloquinone on the initiated polymerization of xylene at 40 and 60°C was studied in the same way as previously (MTA KKKI Közleményei, no. 5, 13, 29, 1961; ibid., no. 7).

Results: (1) The relative reactivity k_5/k_2 is a linear function of $1/T$. k_5/k_2 is 106 at 40°C and 61 at 60°C. (2) The activation energy of the inhibition is zero, the frequency factor is very low: $\log A_5 = 5.04 \pm 0.31$.

(3) Hence, inhibition is a nonadiabatic and exothermic reaction with a very low transmission coefficient; an approximate calculation for p-benzoquinone gave $\Delta H \geq -10$ kcal/mole. (4) The stoichiometric coefficient, which is 1.06 at 40°C and 1.07 at 60°C, is independent of the temperature. There are 1 figure and 2 tables.

Card 1/2

Int. Soc. Chem. Ind. of Chemistry Hungary AS Budapest
Submitted: Dec 25 1961

S/190/62/004/009/013/014
B101/B144

5.4300

AUTHORS:

Tüdös, F., Simándi, L., Azori, M.

TITLE:

Inhibition kinetics of radical polymerization. VII. Effect of halogenated quinones on the initiated polymerization of styrene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 9, 1962, 1431-1444

TEXT: Inhibition of the polymerization of styrene by 2,5-dichloro benzoquinone, 2,6-dichloro benzoquinone, trichloro benzoquinone, chloranil, bromanil, and iodanil at 50°C was studied by methods described previously (MTA KKKI Közleményei, no. 7 (V és VI); ibid. no. 5, 13, 1961). Halogenated quinones were found to be active inhibitors. The inhibition period, however, is a nonlinear function of the inhibitor concentration. A radical which causes chain regeneration is formed by halogenated quinones with the monomer at a ratio of 1:1. The formation of this "charge transfer" complex (R. S. Mulliken, J. Amer. Chem. Soc., 74, 811, 1952) increases the reactivity of the halogenated quinones owing to an increase in transmission coefficient. The stoichiometric coefficient is

Card 1/2

NAGY, Ferenc; SIMANDI, Laszlo

Reduction of liquid-phased silver ions with gas-shaped hydrogen.
Magy kem folyoir 68 no.7:310-316 J1 '62.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete.

TUDOS, Ferenc, a kémiai tudományok kandidátusa; BEREZSNICH, Tamara;
HEIDT, Janos; SIMANDI, Laszlone; TURCSANYI, Bela

An account of the Smolenice conference dealing with the
chemical conversion of polymers. Kem tud kozl MTA 19
no.2:279-282 '63.

1. Magyar Tudományos Akadémia Kozponti Kémiai Kutató
Intézete, Budapest. 2. "A Magyar Tudományos Akadémia
Kémiai Tudományok Osztályának Közleményei" szerkesztő
bizottsági tagja" (for Tudos).

.....

NAGY, Ferenc, dr. (Budapest, II., Pusztaszeri ut 57/69); SEBASTI, Iaszlo
(Budapest, II., Pusztaszeri ut 57-69)

Homogeneous liquid phase activators of the H_2 molecule.
Pt.2. Acta chimica Hung 38 no.4:373-383 '63.

1. Central Research Institute for Chemistry of the Hungarian
Academy of Sciences, Budapest.

MAGY, Ferenc; SEMANDI, Laszlo

Factors determining the velocity of the reduction of Ag(I)-diamine-complexes formed with aliphatic monoamines occurring in the liquid phase of gas-shaped hydrogen. Magyar kem folyoir 69 no.10:433-437 '63.

1. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete, Budapest.

SIMANDI, László; NAGY, Ferenc

Kinetic examination of homogeneous catalytic hydrogenation of cinnamic acid in aqueous solution in presence of pentacyanocobaltate (II) ion. *Magy kem folyoir* 71 no.1:6-11 Ja '65.

1. Central Research Institute of Chemistry of the Hungarian Academy of Sciences, Budapest.

L 16993-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6008598

SOURCE CODE: HU/0005/65/071/004/0141/0143

AUTHOR: Simandi, Laszlo

ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences,
Budapest (Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete)

TITLE: Polarographic study of the hydrogen-uptake reaction of the pentacyano-
cobaltate(II) complex

SOURCE: Magyarkemiai folyoirat, v. 71, no. 4, 1965, 141-143

TOPIC TAGS: polarographic analysis, cyanate, cobalt compound, hydrogen

ABSTRACT: The polarograms of a $0.002\text{ M Co(CN)}_5^{3-}$ solution in a 0.5 N KCN medium, both prior to and following flushing with oxygen-free hydrogen, were presented and discussed. It was shown that the hydrogen uptake reaction of pentacyanocobaltate(II) is not an oxidation-reduction process since the oxidation number of the central ions remains unchanged. The reaction product contains a stabilized hydrogen atom. Orig. art. has: 2 figures and 4 formulas. [JPRS]

SUB CODE: 07 / SUBM DATE: 20Jul64 / ORIG REF: 002 / OTH REF: 011

Card 1/1

L 47238-66 EWP(J)/T RM

ACC NR: AP6034304

SOURCE CODE: HU/0005/66/000/006/0244/0248

AUTHOR: Simandi, Laszlone—Shimandine, L.; Tudos, Ferenc—Tyudesh, F.; Turcsanyi, Bela--Turchani, E.

ORG: Central Research Institute of Chemistry, Hungarian Academy of Sciences, Budapest (Magyar Tudomanyos Akademia, Kozponti Kemiai Kutato Intezet)

28
B

TITLE: Kinetics of free radical polymerization XVIII. Inhibition of free radical polymerization with quinone

SOURCE: Magyar kemiai folyoirat, no. 6, 1966, 244-248

TOPIC TAGS: radical polymerization, polymerization kinetics, quinone, polymerization inhibition

ABSTRACT: [Authors' Hungarian summary] The inhibitory effect of multiple-ring quinones on the polymerization of styrol was examined. In addition to the member which responds to changes in the redox potential, the logarithm of relative reactivity of quinones also contains a member corresponding to the change in resonance energy which accompanies the transition from quinoidal to benzoidal structure. The experimental value of the stoichiometric coefficient is, in general, considerably lower than the theoretical one. This experience can be interpreted by means of the hot radical hypothesis.

The authors thank Zsador Belane and Aitner Jozsefne for their participation in the research work. Orig. art. has: 2 figures and 2 tables. [JPRS: 36,862]

SUB CODE: 07 / SUBM DATE: 18Sep65 / ORIG REF: 005 / SOV REF: 001 / OTH REF: 021

Card 1/1gd

0921 0023-

SIXMANLL, LUSA.

Literatura o vyrobe legovanych oceli, 1930-1954;
seznam knih a jinych neperiodickych publikaci a
clanku v casopisech. Ostrava, 1954. 73 p.
(Statni studijni knihovna v Ostrave. Publikace.
Rada I, cis. 52)

SOURCES: REAL LC Vol. 5, No. 10, Oct. 1956

SIMANDL, D.

Subject: JOURNAL ISSUED BY THE MINISTRY OF THE METALLURGICAL INDUSTRY
AND ORE MINES.

Vol 9, No. 9, Sept. 1954

Title: Evaluating National Bibliography From the Point of View of
Needs of the Ministry of the Metallurgical Industry and Ore
Mines.

Author: Simandl, D.

~~ps 548~~

Subject: JOURNAL ISSUED BY THE MINISTRY OF THE METALLURGICAL INDUSTRY
AND ORE MINES.

Vol 9, No. 9, Sept. 1954

Title: Production of Steel Alloys.

Author: Walla, V.

p. 549

of

EEAL, Vol 4, No. 6, June 1955

CZ/0079/66/008/003/0259/0262

CZECHOSLOVAKIA

AUTHOR: Simandl, J.; Pechoucek, M.

ORG: Research Institute for Mathematical Machines, Prague (Vyzkumny ustav matematickych stroju)

TITLE: Use of a computer to process results of hypnopedic tests

SOURCE: Activitas nervosa superior, v. 8, no. 3, 1966, 259-262

TOPIC TAGS. computer coding, human physiology, psychophysiology, psychometry, computer application

ABSTRACT: Exploratory research was conducted in processing results of tests on mental processes in sleeping subjects (such as repeating a series of words or numbers), of coded electroencephalographic recordings, also subjective data from groups of persons including the quality of sleep, dreams, awakening intervals, and in coding their replies to questionnaires. The purpose of tests was to classify persons as to pre-selected variables of two types: those obtained by periodicity (numerical) and those of a nominal or relationship character (non-numerical). Due to the limited operational and memory capacity of the EPOS-1 computer employed, 48 variables were selected for processing (30 numerical, and 18 non-numerical) representing groups of persons exhibiting similar qualities in each branch of the investigation. Punch cards were made for 30 persons including the 48 variables for each. This stores 990 numerical and 800 non-numerical addresses in the computer memory cell. Computer operations are

1/2

- 53 -

GIMANDL, J.

Reconstructing the No. 2 blast furnace in Trinoc. p. 310.

HUTNIK. Vol. 6, no. 10, Oct. 1956

Praha, Czechoslovakia

SOURCE: East European List (EEAL) Library of
Congress, Vol. 6, No. 1, January 1957

SHANDEL, J.

SHANDEL, J. Using new technique to reduce the time required for general repairs of blast furnaces. p. 66.

Vol. 7, no. 2, Feb. 1957

RUSSIAN

TECHN LOMY

Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

SIMANDL, J

✓ Isolation of tetrathylthiuram disulfide from *Coprinus atramentarius*. J. Simandl and J. Prine (Výzkumný ústav org. syn. les. Pardubice Rybitví, Czech.). Chem. Listy 50, 1952-3 (1953).—Autolysed *C. atramentarius* was extd. with CCl_4 , the ext. evapd. and the residue extd. with MeOH to give tetrathylthiuram disulfide, m. 70.5°, which is responsible for intoxications by the above mushroom when EtOH is injected at the same time. M. Hudlický

ACC NR: AP6032760

SOURCE CODE: CZ/0079/66/008/003/0259/0262

AUTHOR: Simandl, J.; Pechoucek, M.

ORG: Research Institute for Mathematical Machines, Prague (Vyzkumny ustav matematickych stroju)

TITLE: Use of a computer to process results of hypnopedic tests

SOURCE: Activitas nervosa superior, v. 8, no. 3, 1966, 259-262

TOPIC TAGS: computer coding, human physiology, psychophysiology, psychometry, computer application

ABSTRACT: Exploratory research was conducted in processing results of tests on mental processes in sleeping subjects (such as repeating a series of words or numbers), of coded electroencephalographic recordings, also subjective data from groups of persons including the quality of sleep, dreams, awakening intervals, and in coding their replies to questionnaires. The purpose of tests was to classify persons as to pre-selected variables of two types: those obtained by periodicity (numerical) and those of a nominal or relationship character (non-numerical). Due to the limited operational and memory capacity of the EPOS-1 computer employed, 48 variables were selected for processing (30 numerical, and 18 non-numerical) representing groups of persons exhibiting similar qualities in each branch of the investigation. Punch cards were made for 30 persons including the 48 variables for each. This stores 990 numerical and 800 non-numerical addresses in the computer memory cell. Computer operations are

Cord 1/2

ACC NR: AP6032760

then described for classifying tested persons in groups as to all given variables, also arithmetical averages and divergencies from the average. In trial runs about 25 min were consumed in manual handling of the cards for about 1,000 set values. Orig. art. has: 2 figures.

SUB CODE: 06, 09/ SUBM DATE: none

Card 2/2

VRUBLEVSKIY, V.I.; RAVICH, K.S.; SIMANDLYA, A.I.; VAN'CHEV, I.L.

Weighing equipment for the proportioning of a cupola charge.
Lit. proizv. no.3:15 Mr '65. (MIRA 18:6)

CIMANDY, Pal

Perspectives of polytechnical viewpoints. Borsod szemle 8
no. 2:26-31 '64.

PROCESSES AND PROPERTIES INDEX									
<p>8A</p> <p style="text-align: right;">A 53</p> <p style="text-align: right;">533.5 : 621.789</p> <p>8440. Auxiliary electronic equipment of an ionization vacuum gauge. C. Sirmze. Slabopr. Obs., 11, 209-13 (Nov., 1960) In Czech.</p> <p>A description of power supplies, a device for automatic stabilization of the emission current at an adjustable value, a device for measuring the ion current and a protective relay system to safeguard the gauge against damage due to faulty handling and accidental failure of the vacuum system.</p> <p style="text-align: right;">A.</p>									
<p>AS 53.4 METALLURGICAL LITERATURE CLASSIFICATION</p>									

② 51141E.1

337,542 : 339,164.00

1958. The use of diamonds as reflection detectors.
C. S. Smith. Can. Pat. Abstr. No. 75 (No. 1) D105-
D106 (1958) in Chem.

More than 20% of opaque and badly shaped
industrial diamonds of Brazilian origin were found
to be sensitive to x-rays in vacuum. This sensitivity
was localized in a few small regions of the diamond's
surface; this explains why the pulses are not observable
at atmospheric pressure when they are masked by
parasitic pulses due to the ionization of the ambient
air. The same reason must account for the absence
of any observable β - and γ -sensitivity which, however,
has been frequently established on well-shaped and
transparent diamonds. B. V. KRAUS

13000 0004570

000001 000 000 100

13000 0004570

000001 000 000 100

SILANE, G.

Šimánek, Č.: Urychlovací ionty a elektrony. Prague:
~~1951~~ 1951 pp. 11, 30 Kčs. Review in Chem.
Listy 48, 1103 (1951)

CZECH

537.531 : 535.338

7477. X-ray radiation excited by protons. C.

SUMMARY. Letter in Czech. J. Phys. 3, 175 (June, 1953).

When a copper target was bombarded with 750 keV protons, the K α line of the characteristic X-ray spectrum of copper was observed by means of a simple Bragg spectrometer using an NaCl crystal and G.M. counters. The dependence of the quality and intensity of the X-radiation from different target materials previously found by Livingstone *et al.* has been confirmed.

BB

D. A. CHICK

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S. M. N. E. C.

521.384.6 : 537.534 (b)
4748. Elementary theory of accelerators. II-III.
C. Souda. *Elektrotech. Obzor*, 42, No. 10, 350-7;
Nov. 12, 678-85 (1953) In Czech.
For Pt I, see Abstr. 2587 (1953). Pt II treats the
general theory of circular accelerators and the special
theory of the betatron. Pt III deals with the theory of
h.f. circular accelerators. A.

3-1-55
RML

SIRAM, G.

"Elementary Theory of Accelerators. III." p. 676. (ELEKTROTECHNICKY OBZOR, Vol. 42, No. 12, December 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, IC, Vol. 3, No. 5, May 1954, Unclassified

SIMANE, CESTMIR

✓ The excitation of x-rays by protons in zinc, copper, nickel, cobalt, and iron. Jan Urbánek and Cestmír Simánek (Czechoslovak Acad. Sci., Prague). Czechoslovak J. Phys. 8, 40-8 (1968) (in Russian) (English summary).—The K α -lines of the neighboring elements Fe to Zn were excited by protons of energies between 400 and 700 e.k.v. The dependence of the intensities of these lines upon the energies of the protons was detd. and compared with theory. The agreement was satisfactory; small deviations could be ascribed to statistical fluctuations and to small changes in the proton energies. The theoretically predicted decrease of the intensity of the K α -lines with increasing at. no. was confirmed. A Bragg spectrometer with NaCl crystal was used to obtain the x-ray spectrum. In the construction of the spectrometer the presence of a strong γ -background due to parasitic nuclear reactions was taken into consideration. To detect the reflected x-rays a bell-type Geiger-Müller counter in a Pb shield was used. The proton current was focused on the target to a diam. of 1-3 mm. R. Gura

RAW
BY

SIMANE CESTMIR

JOINT STUDIES ON NUCLEAR RESEARCH. Cestmir
Simane. Jaderna Energie 2, 346-7(1958). (In Czech)

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483d

RMK

DEJMAL, Vaclav, Dr.; SIMANE, Cestair Ing.

Investigations on tissue fluids in radiosodium. Cas. lek. cesk.
95 no. 10:270-274 9 Mar.56.

1. Z interni kliniky prof. Dr. V. Jonase, Hyg. lekarske fakulty KU
v Praze a z Fysikalniho ustavu Cs. akademie ved v Praze.

(SODIUM, radioactive,
determ. of body fluids (Cz)
(BODY FLUIDS,
determ. with radiosodium (Cz)

SRAME, Cestmir, inz.

Use of radioisotopes in science and research. Jaderna energie 3
no.6:177-180 Je '57.

1. Ustav jaderne fysiky, Ceskoslovenska akademie ved, Praha.

Simone Cestmir
CZECHOSLOVAKIA/Nuclear Physics - Nuclear Power and Technology C-8

Act Jour : Ref Zhur - Fizika, No 4, 1958, No 7949

Author : Simone Cestmir

Inst : NOT GIVEN

Title : Use of Radioactive Isotopes in Scientific Research Work

Orig Pub : Jaderna energie, 1957, 3, No 6, 177-180

Abstract : No abstract

Card : 1/1

1. TITLE

"Accelerators of ions and electrons: principles and basic calculations
of linear and circular accelerators."

Prague, Czechoslovakia, Artia, 1958, 191 p.

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclass

OTR 11, 1.

Thermonuclear reaction; p. 529

TIKHONOV, VASIL. Czechoslovakia, Vol. 11, No. 7, July 1959.

Monthly List of East European Accessions (ELAI), LC, Vol. 8, No. 2, Sep 1959
encl.

2/019/02/019/006/001/003
0006, 0102

AUTHOR: Šimáně, C.

TITLE: The Mössbauer effect

PERIODICAL: Přehled vědecké a hospodářské literatury. Energetika a elektrotechnika, v. 19, no. 6, 1962, 216, abstract # E 62-3326. *Lat. Fiz. Astron.* 6, no. 5, 1961, 255-273

TEXT: A detailed study of the principle and theory of the effect is given. The application of the effect for determination of the magnitude and orientation of the magnetic field in an iron core and the electric field in a crystal, as well as experiments with Fe 57 and Zn 67 are described. The derivation of the Doppler effect of the second order, and the derivation of the equivalency principle in the general relativity theory are explained. Application of the Mössbauer effect to absorption spectrometry is described. The original article contains 15 figures, 1 table, and 2 references. [Abstracter's note: Complete translation.]

Card 1/1

1. G.

Chemical Abst.

Vol. 48

Apr. 10, 1954

Inorganic Chemistry

Synthesis of strontium diborate. H. Gede and H. Smarke (Chem. Inst., Acad. Sci. Latv. S.S.R., Riga). *Zhurnal' SVR Zinatny Akad. Vsesis* 1950, No. 9 (Whole No. 38), 87-89 (in Russian, 68-71); cf. C.A. 48, 69f.— $\text{SrO} \cdot \text{B}_2\text{O}_3 \cdot 4\text{H}_2\text{O}$ is prepd. by addn. of carbonate-free soln. of 3.2 g. NaOH in 180 ml. water to 7.6 g. of crystalline borax; this soln. and a soln. of 4.2 g. of anhyd. $\text{Sr}(\text{NO}_3)_2$ in 20 ml. water are heated to 60° , mixed, and held at temp. for 30 min. The diborate (3.0 g.) ppts. in long prismatic crystals. Synthesis at 0° and 20° produces $\text{SrO} \cdot \text{B}_2\text{O}_3 \cdot 4.3\text{H}_2\text{O}$. The diborate forms at pH between 11.4 and 12.0. At lower values, a mixt. of diborate and an unknown acid borate is obtained. At higher pH, large diborate crystals ppt., contaminated with Sr hydroxide. A ternary $\text{SrO}-\text{Na}_2\text{O}-\text{B}_2\text{O}_3$ diagram is outlined. A. Dravnieks.

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A
JW

SIMANE, J.

The polarographic determination of oxygen in blood. J. Simand (II. Intern. Staats-Klinik, Prague). *Sbornik Masarykov. Polareog. Sjezda, Praha, 1st. Congr. 1931, Pt. 1, Proc. 779-811 (in Russian), 781-8 (in German).*—To 5 ml. of a ferricyanide soln. in a borate buffer of pH 8.5 contg. some saponin is added 0.20 ml. of blood. A layer of paraffin oil on top of the soln. prevents gas exchange with the atm. The O concn. in the blood is calcd. from the height of the polarographic (I) waves obtained before and after addn. of the blood. The error is ± 0.3 vol. % in venous blood and 0.45 vol. % in arterial blood. (Oto H. Mäller

24(2,4) PHASE I BOOK EXPLOITATION CZECH/2433

International Polarographic Congress. Ist. Prague, 1951

Štefánik I. Matematicko-polarografické sjezdy. Díl 3: Hlavní výsledky přednesené na sjezdu. Proceedings... Vol. 3: Reviews Read at the Congress. Praha, Přírodovědecký ústav (1952) 774 p. 2,000 copies printed.

Resp. Ed.: J. Koryta, Doctor; Chief Ed. of Publishing House: Milan Štefánik, Doctor; Tech. Ed.: Oldřich Duka.

PURPOSE: The book is intended for chemists, chemical engineers, and physicists.

COVERAGE: The book is a collection of reviews and original papers read at the International Polarographic Congress held in Prague in 1951. Use of polarography in organic and inorganic analysis, biochemistry, medicine, and industrial chemistry are discussed. In the section, Reviews Read at the Congress, Russian and either German or English translations of each review are presented. In the section, Original papers Read at the Congress, only those translations in Russian, German, and English which have not been published in Volume I are presented. The following scientists participated in the opening of the Congress: Professor Wlodek Kucula, Dean of the Faculty of Sciences, Warsaw; Doctor Jaroslav Holanec, Minister of Planning; Professor Jaroslav Horvath, Chairman of the Congress; and Professor Jaroslav Kucula, Chairman of the Center for Scientific Research and Technical Development. References follow each paper.

Santavy P. Polarography of the Oxidation Products of Some Morphine Derivatives
[Russian Translation]
[German Translation]

635
637
638

Doaković J. Polarographic Determination of Oxygen in Blood by Indicators
[Russian Translation]
[English Translation]

645
646
649

Doaković J. Polarographic Study of Some Peroxidatic Oxidations
[Russian Translation]
[English Translation]

651
657
659

Komolík J. and V. Krupčík. Study of Brückner's Filtrate Reaction in Serum
[Russian Translation]
[German Translation]

662
664
667

Card 11/14

SOVA, Jos., Mudr; PECHAR, J., Mudr; ~~SIMANE, J.~~, Rndr; FEIX, C., Mudr;
za techn. spoluprace d. s. H. Vseteckého.

Reaction to a single physical stress in hypertension and normal
conditions; clinico-experimental investigations on formation of
cardiac insufficiency in hypertension. Cas.lek.cesk. 91 no.45-46:
1357-1364 14 Nov 52.

1. Z II. interni kliniky K. U. Praha; prednosta; prof. Mudr A.
Vancura.

(HYPERTENSION, physiology,
eff. of phys. effort on cardiac funct.)
(EXERCISE, effects,
on heart in hypertension)
(HEART, in various diseases,
hypertension, eff. of phys. effort)

SOVA, Jos., MUDr; PECHAR, J., MUDr; SIMANE, J., RNDr; FEIX, C., MUDr;
za tech. spoluprace, d. s. H. Vseteckove-Zaoralkove

Primary hypertension of lesser circulation. Cas.lek.cesk. 91 no.10:
293 7 Mar 52.

1. Z II. int. kliniky Ku; prednosta: prof. MUDr Ant. Vancura.
Pracovni skupina prof. MUDr Fr. Herlesa.
(AYERZA'A SYNDROME)

SOVA, Joseph, MUDr; SIMANE, Jindrich, RUDr; VOKOUN, Jos., Ing. C.

Device of domestic construction for measurement of biological pressure. Cas.lek.cesk. 91 no.16:479-481 18 Apr 52.

1. Z II interni kliniky; prednosta: prof. MUDr Ant.Vancura. Pracovní skupina prof. MUDr Fr.Harlesa.

(MANOMETER,

device for measurement of biol. pressure, Czech construction)

KRAUS, P.: SIMANE, Z.

Biochemistry of isoniazid. Cas. lek. cesk. 98 no.25:Lek. veda zahr.,
121-126 19 June 59.

1. PhMr. Z.S. Vyzkumny ustav tuberkulozy, Praha 8, Bulovka.
(ISONIAZID
biochem., review (Cz))

WAGNER, J.; DOMINEC, M.; SIMANE, Z.

Renal clearance of p-aminosalicylic acid and its relation to blood levels. *Cesk. fysiол.* 9 no.1:97 Ja 60.

1. I. ustav pro lekářskou chemii fak. všeob. lek. Vyzkumný ustav tuberkulózy, Praha.

(PARAMINOSALICYLIC ACID metab.)

(KIDNEYS physiол.)

L 29473-66

ACC NR: AP6019978

SOURCE CODE: CZ/0079/65/007/003/0263/0263

AUTHOR: Simane, Z. (Prague); Kunz, K.; Benesova, O.

ORG: Institute of Pharmacology, Medical School of Hygiene, Prague

TITLE: Levels of pyruvic and alpha-keto-glutaric acid in the ²²brain of rats with different central nervous excitability [This paper was presented at the 7th Annual Psychopharmacological Meeting, Jersonik, 20-23 January 1965.]

SOURCE: Activitas nervosa superior, v. 7, no. 3, 1965, 263.

TOPIC TAGS: brain, biochemistry, rat, central nervous system, neurophysiology

ABSTRACT: Two groups of rats were investigated; the difference between the two groups was based on the intensity of exploratory activity. The levels of pyruvic and alpha-keto-glutaric acids in the brain were 2-3 times higher in the more active group. Orig. art. has: 1 figure. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBJ DATE: none

Card 1/1 *fv*

WAGNER, Jindrich; DOMINEC, Milan; SIMANE, Zdenek

Renal clearance of p-aminosalicylic and N-acetyl-p-aminosalicylic acids. Cas.lek.cesk. 99 no.3/4:118-122 22 Ja '60.

1. I. ustav pro lekářskou chemii KU v Praze, prednosta prof.dr.
Karel Kac1. Vyzkumny ustav tuberkulozy Praha, reditel doc.dr.
R. Krivinka.

(PARAAMINOSALICYLIC ACID)
(KIDNEY FUNCTION TESTS)

SIMANE, Z.

CZECHOSLOVAKIA

SIMANE, Z; KRAUS, P.

Research Institute of Tuberculosis (Vyzkumny ustav
tuberkulozy), Prague, (for both)

Prague, Rozhledy v tuberkulose, No 4, 1963, pp 262-
264

"Variation in Ethionamide Serum Levels After its
Administration in both Tablet Form and in
Solution."

L 13589-66 ENT(m)

ACC NR: AP6006087

SOURCE CODE: CZ/0053/65/014/004/0314/0315

AUTHOR: Simane, Z.

ORG: Institute of Pharmacology, Faculty of Medical Hygiene, Charles University,
Prague (Farmakologicky ustav lek. fak. hyg. KU)

TITLE: Blood and plasma concentrations of isoniazid in rats during acute radiation
sickness [This paper was presented during the Twelfth Pharmacologic Days, Smolenice,
29 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 314-315

TOPIC TAGS: rat, radiation sickness, radiation biologic effect, drug effect,
pharmacology, digestive system, heterocyclic base compound, hydrazine derivative

ABSTRACT: Study in rats given 50 mg/kg isoniazid p.o. or i.v. 3 or 6 days
following 600 r irradiation revealed that the delay in gastric emptying time
and intestinal changes decreased the absorption especially on day 3 after
irradiation; also the concentration in erythrocytes increased from 27% in the
controls to 42% in irradiated animals. [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 001

Cord 1/1

CZECHOSLOVAKIA

KRANS, P.; SIMANE, Z.; Research Institute for Pharmacy and Biochemistry, Prague. [Original version not given].

"The Influence of Chlorpromazine and Perathiepin on Some Enzyme Reactions in Rat Brain Preparations."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, p 393

Abstract: Influence of chlorpromazine and perathiepin on the oxidation of succinate, oxoglutarate, pyruvate, hexokinase, G-6-P-ase, and on adenosinetriphosphatases was investigated on Wistar rats. Chlorpromazine has no effect up to a concentration of 1 mM; perathiepin behaves in a similar manner. Both drugs affect strongly Mg, Na, and K stimulated adenosinetriphosphatases. Chlorpromazine blocks its action completely in a 0.2mM concentration; perathiepin in a 0.4 mM concentration reduces it to 10%. 4 Western references. Submitted at the 8th Annual Psychopharmacological Meeting at Jesenik, 18 - 22 Jan 66. Article is in English.

1/1

38158
S/058/62/000/004/047/160
A058/A101

44 7000

AUTHOR: Šimánek, E.

TITLE: Classical theory of nuclear spin interaction in a ferromagnetic

PERIODICAL: Referativnyy zhurnal: Fizika, no. 4, 1962, 41 abstract 4V307
("Chekhosl. fiz. zh.", 1961, B II, no. 10, 711-718, English;
Russian summary)

TEXT: The author examines the classical theory according to which nuclear spins I in ferromagnetics perform precessional motion in the internal magnetic field with angular frequency ω_M . This field in the metals Fe, Ni and Co is determined by the static component of the magnetic field due to the electron spins. In consequence of hyperfine interaction, the motion of nuclear spins causes precession of the M vector of electron magnetization, the motion of the M vector being transferred to all I spins owing to electron exchange interactions. The variation of the interaction energy of M with I owing to the precession of nuclear spins determines the effective Hamiltonian of spin-spin interactions H_{eff} between different I . The value of M taking into account the external magnetic field, the demagnetizing and anisotropic fields, electron-exchange inter-

Card 1/2

Classical theory of nuclear spin ...

S/058/62/000/004/047/ 160
A058/A101

action and hyperfine interaction is obtained from the Landau-Lifshits equation, H_{ef} being expressed through interaction of transverse M components with nuclear spins. The quantum-mechanical theory (RZhFiz, 1959, no. 12, 27623) is compared with the obtained result. The author found an explicit dependence of H_{ef} on ω_N and on the λ constant of ferromagnetic resonance damping, as well as a connection between transverse relaxation time T_2 of nuclear spins and H_{ef} . In the case of cobalt the value of the local field found by the author is consistent with experimental data but cannot be derived from existing quantum-mechanical theory.

U. Kopvillem

[Abstracter's note: Complete translation]

Card 2/2

SIMANEK, E.

On nuclear relaxation in Bloch walls. Chekosl fiz zhurnal
13 no.10:732-736 '63.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

24.7000

38159
S/058/62/000/004/048/160
A058/A101

AUTHORS: Šimánek, E., Šroubek, Z.

TITLE: On the mechanism of nuclear spin-lattice relaxation in Bloch walls

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 41, abstract 4V308
("Chekhosl. fiz. zh.", 1961, B II, no. 10, 764-765, English summary)

TEXT: The authors propose a new mechanism of nuclear magnetic longitudinal relaxation for ferromagnetic substances. As a result of thermal vibrations in the crystal, the Bloch wall effects fluctuations near the equilibrium state, which causes variations of the local magnetic field near the nucleus. Relaxation probability is proportional to the square of the matrix element of the magnetic moment operator and to the temperature, and inversely proportional to wall area S , the square of wall thickness and a certain elasticity parameter α . Inasmuch as the quantities S and α are not constant throughout the specimen, longitudinal-relaxation time has a certain distribution and the relaxation process will not be exponential. In the case of the Fe^{57} nucleus, which does not have an electric quadrupole moment, theoretical evaluations are consistent with experimental data.

[Abstracter's note: Complete translation]

U. Kopvillem

Card 1/1

Z/028/62/000/003/001/001
D4C9/D301

AUTHOR: Šimánek, Eugen (Prague)

TITLE: Nuclear magnetic resonance

PERIODICAL: Pokroky matematiky, fyziky a astronomie, no. 3,
1962, 141-154

TEXT: The article lists basic laws governing the nuclear magnetic resonance phenomenon and is primarily based on the monograph by E.P. Andrew (Ref. 1: Nuclear magnetic resonance, Cambridge, 1956) which was also translated into Russian. Nuclear magnetic resonance finds application not only in physics as an experimental method of studying properties of solids and liquids, but also in chemistry, biology, medicine and engineering. All experimental methods of studying nuclear magnetic resonance in solids and liquids are based on the knowledge that a suitable r-f alternating magnetic field induces resonance transitions between Zeeman substates of the angular spin of a nucleus placed in a constant magnetic field. ✓

Card 1/2

Nuclear magnetic resonance

Z/028/62/000/003/001/001
D409/D301

From the various methods for observing these transitions, the so-called absorption method (as used by Purcell) is described in detail and an arrangement mentioned for measuring nuclear magnetic absorption. The author then analyzes some parameters characteristic for the behavior of nuclear spins in liquids and solids which can be measured by the nuclear magnetic resonance method; namely the resonance frequency, the curve width, the spin-lattice relaxation time (T_1), the spin-spin relaxation time (T_2), and the resonance-frequency shift. The article also points to analogies and differences between nuclear magnetic resonance and electron paramagnetic resonance. In conclusion, it is stated that it is possible to directly study the molecular structure or the arrangement of atoms in a crystal from spectra obtained as a result of dipolar interactions. There are 2 figures.

Card 2/2

ROMOVACHEK, I. [Romovacek, I.]; SHIMANEK, I. [Simanek, I.]

Bitumens and coking properties of hard coal. Khim i industriia
36 no.10:368-371 '64.

1. Higher School of Chemical Technology, Prague. Submitted June
15, 1964.

SIMANEK, J.

Country	: CZECHOSLOVAKIA	E
Category	: Analytical Chemistry. Analysis of Organic Substances	
Abs. Jour	: Ref Zhur - Khim., No 5, 1959, No. 15113	
Author	: Romovacek, J.; Simanek, J.; Nedemlel, P.	
Institute	: -	
Title	: Determination of the Total Content of Sulfur in Volatile Liquids	
Orig. Pub.	: Paliva, 1958, 38, No 4, 111-116	
Abstract	: A method is described for the determination of S in volatile organic compounds by means of combustion of the sample in an O ₂ atmosphere (25-30 atm.) and for titration, by complexometric or conductometric methods, of the SO ₄ ⁻² ions formed in the process. About 0.3 g. (1-1.5 ml.) of the sample is introduced by an injector into a capsule prepared from a polyamide resin; the capsule is wrapped with Fe wire and burned in a calorimetric bomb in the presence of 50	
Card:	1/4	

• ŠIMÁNEK, VACLAV

CZECH

✓Apparatus for the automatic analysis of ~~alkali metals~~ by ion-exchange chromatography. Václav Šimánek and Jaroslav Janák (*Ústav pro národní výzkum v Praze, Czech.*). *Chem. Listy* 48, 1023-7 (1954).—An automatic app. is described for the *detn. of alkalis* by means of chromatographic sepn. on ion exchangers. The automatization is based on continuous recording of the changes in elec. cond. of effluent eluting soln. of dil. HCl. Sensitivity can be varied by means of suitable resistances. A system of 2 chromatographic columns speeds up the analysis as well as the recovery of ion exchangers. The filling of the column (35 g. ion exchanger Extra M) is sufficient for the sepn. of 10 mg. equiv. of alkalis. A sample contg. 0.5-10 mg. equiv. of alkalis is acidified with HCl, evapd. to dryness, and dissolved in 10-20 ml. 0.2N HCl. The soln. is then added to the column through which 0.2N HCl is streaming at a rate 2.5 ml./min. The results are evaluated from a graph obtained by recording changes of cond. M. Hodička

Simánek, V.

3384. Turbidimetric determination of naphthenic acids. M. Nedorez and V. Simánek (Ústav pro pěstování vědy, Brno, Czechoslovakia). Chem. Listy, 1955, 49 (8), 1188-1192. — A method is described for the determination of naphthenic acids in aq. soln. and in oils, based on the measurement of the turbidity produced when an alkaline soln. of the acids is acidified. *Procedure* — Place the sample of oil (0.5 g) in a separating funnel provided with a heating coil, thermometer and stirrer, add N KOH (10 ml) and heat the mixture to 60°C for 10 min. with stirring. Allow the two layers to separate and run off the aq. layer. Repeat the saponification with two further 50-ml portions of KOH. Dilute the combined aq. alkaline liquors with H₂O to a known vol., transfer an aliquot into a 100-ml flask, acidify it with N HCl to a pH of 1 to 2.5, dilute to the mark and measure the turbidity after 5 min. To facilitate the separation of the two layers in samples containing over 0.1 per cent. of naphthenic acids, use N aq. ethanolic KOH (30 to 40 per cent. ethanol) for the saponification, but the ethanol must be distilled off before acidification. Up to 5 per cent. of ethanol does not interfere.

G. GLASS

Chem 2

[Handwritten signature]

Simanek, V.

[Handwritten signature]

The turbidimetric determination of traces of naphthenic acids. M. Nedelcová and V. Šimánek. *Práce Ústavu pro Národní Výzkum*, Ser. B, No. 19/24, 67-70 (Russian and German summaries, 71-2) (1950).—The method for the rapid detn. of traces of naphthenic acids (I) in water and crude oil is based on the photometric detn. of the turbidity

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of the emulsion of I obtained by acidifying an alk. soln. of the naphthenates with mineral acids. The emulsion is sepd. from the sample and analyzed at pH 0.5-2.0 within 10 min. after acidification at 15-25°. Solns. of electrolytes such as NaCl or KCl have no effect on the development and d. of the turbidity. The light absorption is almost directly proportional to the concn. of I. I having higher mol. wts. are characterized by higher light absorption. B. S. L.

PM PM [initials]

... ..
... .. of the organic substance of sediments
... .. Nova VI hole raft
... ..

... of the ... to the identification of the
... hearing rocks in the ... Valley.
... 2. ... 1/2 1/4 ...

SIMAN'KO, M. I.

Horse Breeding - Stalin District (Dnepropetrovsk Province)

Work experience of horse breeders of the Zhdanov Agriculture Artel, Stalin District, Dnepropetrovsk Province, Konevodstvo, 22, No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

SOBOLEV, I.M.; SIMANKOV, G.M., otv. red.; KOVALEV, O.I., red.; KOGAN,
I.B., red.; LOVIAGIN, N.V., red.; NAZAROVA, N.V., red.;
GOL'DSHTEYN, L.Ye., red.; DURASOVA, V.M., tekhn.red.

[Guidebook to the city of Kuybyshev] Putevoditel' po gorodu
Kuibyshevu. Kuibyshev, Kuibyshevskoe knizhnoe izd-vo, 1962.
319 p. (MIRA 16:9)

(Kuybyshev--Guidebooks)

S/032/61/G27/004/017/028
B103/B201

AUTHORS: Artemov, P. G., Shpak, G. Z., and Simankov, V. V.

TITLE: Problem of determining mechanical properties of synthetics under torsion

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 455-461

TEXT: It is pointed out here that the methods serving for the determination of the mechanical properties of metals under torsion, are applicable in the case of synthetics as well. A machine intended for brittle materials has been redesigned for the purpose. The authors were urged to do so considering that standard methods for synthetics were not available. Principles applying to synthetics differ only inconsiderably from such for metals and other substances. The authors, therefore, made use of them to a certain extent in the torsional deformation of synthetics. The fact is stressed that most thermoplastic and thermosetting synthetics employed in machine- and instrument construction exhibit a brittle failure. Machines available at present for the determination of mechanical characteristics in the torsion of materials (Fig. 1) are found to have the

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S/032/61/027/004/017/028
B103/B201

Problem of determining mechanical ...

following drawbacks: (1) The guiding and the guided shafts 1 - 2 are not precisely coaxial, which fact causes sample 3 to bend. Additional strains arise as a result, that do not belong to those due to torsional deformation. (2) Pendulum 4, which serves as a counterweight of the torsional moment acting upon the sample, permits the latter to turn through a very large angle, while the torsion angles of the sample, which are to be determined, are very small. This gives rise to a considerable error source when determining small values from the difference of two large values. (3) The moment acting upon the sample is determined from the deviation of the pendulum and of the transmitting mechanism connected therewith. The test results are considerably distorted by the imperfect work of these mechanisms as well as by friction. The centers mentioned in the Association have jointly determined the yield strength τ_p and the modulus G of tangential elasticity for synthetics: Monolith no. 1, fiber plastic, and organic glass. G. F. Gorskaya, laboratory assistant, and V. I. Shumilov, mechanic, took part in the work. To eliminate defects (1) - (3) of the machine, the latter was remodeled in the following manner: sample 3 was connected by means

Card 2/4

Problem of determining mechanical ...

S/032/61/027/004/017/ 10
B103/B201

of links to shafts 1 and 2. Defect (1) was thus suppressed. Furthermore, a pulley 6 was mounted on shaft 1 to hold weight 9, hanging from steel band 7. Both the diameter of the pulley and the size of the weight, thus also the magnitude of the moment applied can be predetermined with sufficient accuracy. When measuring the torsion angle α , shaft 2 was clamped, and the accuracy of results was considerably increased thereby. Angle ψ was determined on one length of sample 1 by means of Martens' mirror device [Abstractor's note: not described in the text]. An additional mirror 10 was used for the purpose. To obtain a diagram in coordinates "torsional moment; torsion angle α ," shaft 2 must be tied up and pendulum 4 must be actuated. Samples $120 \times 15 \times 10$ mm. 4648-56 (GOST 4648-56) have been tested by the authors. G was first determined, and thence, G was found. G was rechecked on steel samples (type 40), 5×7.5 mm for a control. There are 2 figures and 1 table.

ASSOCIATION: Zavod izdeliy plastmass im. "Komsomol'skoy pravdy"
(Factory for Synthetic Products imeni "Komsomol'skaya pravda");
Leningradskiy institut tochnoy mekhaniki i optiki
(Leningrad Institute of Precision Mechanics and Optics)

Card 3/4

- -
- -

ARTEMOV, P.G.; SHEPAK, G.V.; SIMANKOV, V.V.

Determination of elastic constants E , G , and μ for thermosetting
isotropic plastics. Plast.massy no.5:58-59 '62. (MIRA 15:4)
(Plastics--Testing)

SIMANKOVA

H.

PARMA, C., Doc. Dr; SIMANKOVA, Alena Dr

Mastication following gastric resection, Cas. lek. cesk. 93 no. 44:
1224-1225 20 Oct 54.

1. Stomatologický ústav v Karl. Varech (lax red. Dr K. Bures)
(STOMACH, surgery,
gastroctomy, postop. mastication)
(MASTICATION,
after gastroctomy)

SIMANKOVA, Ludmila, inz.; FELC, Antonin

Instrument for the measurement of temperature coefficients of capacities. Sdel tech ll no.4:125-126 Ap '63.

SEBANEKOVA, Ludmila, inz.; REZNY, Ludvik

New method of measurement of the quality factor of piezoceramic resonators. Sdel tech 11 no. 12: 445-448 D '63.

SIMANKOVA, N.; BRISKA, M.; RASKA, B.

Shwachmann's test in mucoviscidosis and in other diseases. Cesk.
pediat. 15 no.2:111-116 F '60.

1. Katedra nemocnicni pediatrie fakulty detskeho lekarstvi v
Praze, vedouci prof. dr. J. Svejcar.
(PANCREATIC CYSTIC FIBROSIS diag.)
(CHLORIDES chem.)
(SWEAT chem.)

CERNY, M.; SIMANKOVA, N.; MISAROVA, Z.; CERNA, M.

Chromosomal examination in leukemias in children. Cesk. pediat. 17
no.11:976-979 N '62.

1. Ustav obecné biologie fak. vseob. lek. Karlovy university v Praze,
prednosta prof. dr. B. Sekla I detska klinika fak. det. lek. Karlovy
university v Praze, prednosta prof. dr. J. Svejcar.
(CHROMOSOMES) (LEUKEMIA)

SIMANKOVA, N.; VAVROVA, V.

Genealogical study of families with mucoviscidosis. Cesk.
pediat. 18 no.10:942-946 O '63.

1. I detska klinika fakulty detskeho lekarstvi KU v Praze,
prednosta prof. dr. J. Svejcar II detska klinika fakulty
detskeho lekarstvi KU v Praze a Ustav vyzkumu vyvoje ditete
v Praze, reditel prof. dr. J. Houstek.

(PANCREATIC CYSTIC FIBROSIS)
(RESPIRATORY TRACT INFECTIONS)
(PEPTIC ULCER) (ALLERGY)
(PREGNANCY IN DIABETES)
(PREGNANCY COMPL.)
(CONSANGUINITY) (DELIVERY)
(GENETICS, HUMAN)

STANINOV, N.

PLITS, A.; TSIRKUNOV, A.; SIMANKOVICH, N.

Adjustable stand for sawing carcasses. Mias. Ind. SSSR. 25 no.3:55
'54. (MIRA 7:7)

1. Mogilevskiy myasokombinat.
(Meat industry)

PLITS, A.; SIMANKOVICH, N.

Freight elevator without operator. Mias.ind. SSSR. 25 no.4:60
'54. (MLRA 7:8)

1. Mogilevskiy myasokombinat.
(Elevators)

CERNY, M.; SOUKUP, F.; CERNA, M.; MISAROVA, Z.; SIMANKOVA, N.; ELEFANT, E.;
BOHACOVA, Z.

Karyological findings in multiple malformations. Acta univ.
Carol.[med] (Praha): Suppl. 18: 111-118 '64.

1. Ustav obecné biologie fakulty všeobecného lékařství University
Karlovy v Praze (prednosta: prof. dr. B. Sekla); I. detská
klinika fakulty detského lékařství University Karlovy v Praze
(prednosta: prof. dr. J. Svajcar); III. detská klinika fakulty
všeobecného lékařství University Karlovy v Praze (prednosta:
prof. dr. O. Vychytil) a IV. detská klinika fakulty všeobecného
lékařství University Karlovy v Praze (prednosta: prof. dr.
F. Blazek).

1. J. J. SHERMAN, P. J. SHERMAN, M. J. CERNY, M.

Long-term findings in children's leukemia. A. J. Univ.
[ref] (Prima): Suppl. 18: 135-141, 1974.

1. I. detekční klinika fakulty všeobecného lékařství University
Karlovy v Praze (prednostas: prof. dr. J. Smejkal) a Ústav
všeobecné fakulty všeobecného lékařství University Karlovy v
Praze (prednostas: prof. dr. B. Sekla).

KORYCH, B.; CERNY, M.; SOUKUP, F.; MISAROVA, Z.; CERNA, M.; SIMANKOVA, E.;
HOLECKOVA, E.; CHYLE, M.

Chromosomal characteristics of various lines of tissue cultures
in Czechoslovakia. Acta univ. Carol. [med] (Praha):Suppl. 18:
143-149 '64.

1. Ustav pro lekarskou mikrobiologii a imunologii fakulty vse-
obecneho lekarstvi University Karlovy v Praze (prednosta: prof.
dr. F. Patocka); Ustav obecne biologie fakulty vseobecneho lekarstvi
University Karlovy v Praze (prednosta: prof. dr. B. Sekla) a
I. detska klinika fakulty detskeho lekarstvi University Karlovy
v Praze (prednosta: prof. dr. J. Svejcar).

SOV/81-59-7-25416

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 7, p 530 (USSR)

AUTHOR: Simanov, S.A. /

TITLE: Pipes Made of Organic Glass 10

PERIODICAL: Za tekhn. progress, Sovnarkhoz Gor'kovsk. ekon. adm. r-na, 1958,
Nr 5, pp 41 - 42

ABSTRACT: An experimental installation was erected for the production of pipes of organic glass by the method of welding. The technology of the production of pipes was given by presenting the following diagrams: preparation of the pipe, drawing the intermediate product through the molding pipe, and casings for cooling the molded pipes. The properties and fields of application of the pipes were given. (✓)

N.L.

Card 1/1

SEMANOV, S. N.

Semánov, S. N. On a method of obtaining conditions for the existence of periodic solutions of nonlinear systems. Prikl. Mat. Meh. 19 (1955), 225-228. (Russian)
Consider

$$(1) \dot{z}_i = \sum_{k=1}^n a_{ik}(t) z_k + Z_i(t, z_1, \dots, z_n), \quad (i=1, \dots, n),$$

where the Z are power series in z_1, \dots, z_n, μ convergent in the neighborhood of $z_1 = \dots = z_n = \mu = 0$ and containing neither constant nor linear terms; the coefficients of these series as well as the a_{ik} are continuous periodic functions of t of period 2π . The problem is to find small harmonic oscillations corresponding to small nonvanishing values of μ , in the critical case where the linear system $\dot{z}_i = \sum_{k=1}^n a_{ik} z_k$ has vanishing characteristic exponents. By means of a nonsingular linear transformation with constant or periodic coefficients the system may be reduced to

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(1)

$$(2) \quad \dot{x}_i = X_i(t, x, y, \mu), \quad \dot{x}_{n_i} = x_{n_i-1} + X_{n_i}(t, x, y, \mu),$$

$$\dot{y}_j = \sum_{i=1}^l c_{ij} y_i + Y_j(t, x, y, \mu)$$

$$(i=1, \dots, k; j=2, \dots, m; j=1, \dots, l).$$

c_{ij} , constants, X, Y satisfying similar assumptions as the Z . Consider the system (3) obtained by the addition of indeterminate constants W_i to the first k equations of (2). Then (3) has small harmonic vibrations satisfying the initial conditions $x_{n_i}(0) = \beta_{n_i}$ ($i=1, \dots, m$), $y_j(0) = \gamma_j$, where $\beta_i = \beta_{n_i}$ are arbitrary and $\beta_{n_i} = \beta_{n_i}(\mu, \beta_i)$ ($i=1, \dots, m-1$), $\gamma_j = \gamma_j(\mu, \beta_i)$, $W_i = W_i(\mu, \beta_i)$ certain analytic functions. A necessary and sufficient condition for the existence of small harmonic vibrations of (1) is that the system $W_i(\mu, \beta_i) = 0$ have solutions $\beta_i = \beta_i(\mu)$ vanishing with μ . The method may be applied practically by using formal series for x, y, W . J. L. Massera (Montevideo).

SIMANOV, S. N.

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✓ 1311. Simonov, S. N., On the problems of finding the characteristic exponents of systems of linear differential equations with periodic coefficients (in Russian), *Dokladi Akad. Nauk SSSR (N.S.)* 109, 6, 1102-1105, 1956.

Consider the n -vector system

$$\dot{x} = [A + \mu F(t, \mu)]x \quad (1)$$

where A is a constant matrix and F has period 2π in t and is analytic in μ (real) in some interval $|\mu| < \mu^0$. Let λ_1 be a characteristic root of A . The analytic nature of the characteristic exponent of (1) corresponding to λ_1 , a simple root has been discussed in the following papers: Artemie, *Izv. Akad. Nauk SSSR, math. Ser.* 8, no. 2, 1944; Shimanov, *Prikl. Mat. Mekh.* 16, no. 2, 1952. The present note takes up the case where λ_1 is multiple or even where two λ 's differ by a multiple of i . The nature of the fractionary powers of λ_1 in the expansions of the characteristic exponents is fully determined.

S. Lefschetz, Mexico

Simonov

SIMANOV, V.

V. SIMANOV

"The first radio message which saved human lives." p. 2. (LUDOVÍ ROZHLAS,
Vol. 9, no. 3, Jan. 1953, Bratislava, Czechoslovakia.)

30: Monthly List of East European Accessions, L.J., Vol. 2 No. 7, July 1953, Uncl.

SIMANOV, V. A.

USSR/Minerals - Spectral analysis

Card 1/1 Pub. 43 - 48/97

Authors : Makhnev, Yu. A.; Simanov, V. A.; and Shavrin, A. M.

Title : Application of the method of dilution during spectral analysis of powders

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 272-273, Mar-Apr 1954

Abstract : It was shown by one of the authors that the application of the method of diluting the analyzed sample of rocks or slags with silicon oxide makes it possible to eliminate the effect of different analyzed objects on the spectral analysis results. The results obtained with the dilution method in determining the content of Ni and Mn in various rocks and ores are briefly described. The probable error in determination was $\pm 6.5\%$. Two USSR references (1949 and 1950).

Institution : The A. M. Gorkiy State University, Molotov

Submitted :

S/079/60/030/05/05/074
B005/B002

AUTHORS: Simanov, V. A., Nemtsov, M. S.

TITLE: Investigation of the Process of Alkaline Oxidation of
Isopropylbenzene / On the Mechanism of Alkaline Initiation
of the Reaction

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1420-1428

TEXT: In the introduction of the present paper, a survey is given on data published with regard to the oxidation of isopropylbenzene with molecular oxygen (Refs. 1-8). R. Yu. Udris is mentioned in this connection. The authors of the present paper investigated the mechanism of the alkaline oxidation of industrial isopropylbenzene. Two samples of isopropylbenzene of different origin were used. Table 1 shows boiling ranges, iodine numbers, densities, and refractive indices of the two samples. The two iodine numbers differed considerably. The oxidation of isopropylbenzene was conducted by means of atmospheric oxygen. The unit which was used is shown in a graph and described. The oxidation degree of isopropylbenzene was calculated from the change of the refractive index

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Investigation of the Process of Alkaline Oxidation of Isopropylbenzene. On the Mechanism of Alkaline Initiation of the Reaction S/079/60/030/05/05/074 B005/B002

of the reaction mass by means of a given equation. For the determination of the refractive indices, an Abbé refractometer and also a Pulfrich refractometer of type ~~MP-23~~ (IRF-23) were used. Two figures show the influence of the sodium hydroxide amount on the oxidation rate of the two samples of isopropylbenzene. The investigations showed that during the alkaline oxidation of isopropylbenzene, the lye not only binds the acid by-products of the reaction, but also activates the radical decomposition of the isopropylbenzene-hydroperoxide. The character of this initiator action of the lye is identical with the formation mechanism of free radicals by thermal decomposition of azodinitrile of bis-isobutyric acid. The cation of the alkali liquor is of great influence on the initiator action (Table 2). The activating influence increases with increasing ion radius of the cation; RbOH therefore speeds up the decomposition of isopropylbenzene-hydroperoxide more strongly than NaOH. On the basis of the results obtained, a reaction scheme was set up for the mechanism of the alkaline oxidation of isopropylbenzene, which is given here. The investigations are described in detail. There are 7 figures, 2 tables, and 16 references: 10 Soviet, 5 English, and 1 German.

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Investigation of the Process of Alkaline Oxidation of Isopropylbenzene. On the Mechanism of Alkaline Initiation of the Reaction S/079/60/030/05/05/074 B005/B002 *ic*

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev)

SUBMITTED: June 18, 1959

Card 3/3

S/079/60/030/007/023/039/XX
FOOI/B066

AUTHORS:

Simanov, V. A., Nentsov, M. S.

TITLE:

Investigation of the Alkaline Oxidation Process of Iso-
propyl Benzene II. Alkaline Protection of the Oxidation
Process

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2153-2160

TEXT: To check their previous assumptions regarding the alkaline protection of the oxidation process (Refs. 2,4), the authors carried out experiments on the oxidation of isopropyl benzene in the presence of different alkaline additions (in an equimolecular ratio). Isopropyl benzene was obtained by alkylation with an aluminum chloride catalyst. The method of these experiments has been described in Ref. 1. The previous assumptions concerning the inhibition of the oxidation process of isopropyl benzene by means of the products of acid decomposition of its hydroperoxide were confirmed. Addition of alkaline salts of weak organic acids inhibits the acid decomposition of this hydroperoxide by binding the strong organic acids formed in the oxidation process. Unlike what is seen in the

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Investigation of the Alkaline Oxidation
Process of Isopropyl Benzene. II. Alkaline
Protection of the Oxidation Process

S/079/60/030/007/023/039/XX
B001/B066

presence of free alkali lye, the salts of organic acids do not activate the alkaline decomposition of the hydroperoxide of isopropyl benzene to form free radicals. Alkali salts of organic acids accelerate the above oxidation process, as compared with the process without alkaline addition. The quantitative acceleration effect depends on the nature of the anion of the acid, and is nearly inversely proportional to the strength of the acid. The undesirable impurities in commercial isopropyl benzene do not inhibit oxidation; the real inhibitors are their acid conversion products. The inhibitory impurities are strongest in the initial stage of the oxidation process, when an intensive accumulation of the inhibitory products takes place. The inhibitory action of undesirable impurities in commercial isopropyl benzene is identical with the inhibition of the oxidation process by the by-products resulting from the acid decomposition of the hydroperoxide of isopropyl benzene. Diagram 1 shows the oxidation kinetics of purified isopropyl benzene in the presence of equimolecular quantities of sodium lye and its salts; diagram 2 - oxidation kinetics of purified isopropyl benzene in the presence of sodium stearate; diagram 3 - oxidation kinetics of unpurified isopropyl benzene in the

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SILANOV, V. A., Cand. Chem. Sci. (diss) "Study of Process of Alkaline Oxidation of Isopropylbenzol," Leningrad, 1961, 12 pp. (Acad. of Sci. USSR, Instit. of High-Molecular Compounds) 150 copies (KL Supp 12-61, 256).

S/079/62/032/009/004/011
I048/I242

AUTHORS: Simanov, V.A. and Nemtsov, M.S.

TITLE: Investigation of the alkaline oxidation of isopropylbenzene. III. Some kinetic features of the oxidation in alkaline media

PERIODICAL: Zhurnal obshchey khimii, v.32, no.9, 1962, 2914-2918

TEXT: This is the third part of a paper whose first and second parts appeared in Zhurnal obshchey khimii, v.30, 1960, pp. 1420 and 2153 respectively. It deals with the effect of Na stearate on the rate of decomposition of isopropylbenzene peroxide, of isopropylbenzene peroxide on the rate of oxidation of isopropylbenzene in the presence of Na stearate, and of NaOH on the rate of oxidation of isopropylbenzene. The thermal decomposition of isopropylbenzene peroxide in the absence of Na stearate is a self-accelerating process with a half-time of ca. 8 hrs; the addition of 1 wt % Na stearate inhibits the decomposition reaction and the amount of peroxide decomposed after 8 hours is ca. 8% of the initial amount. This effect is attributed

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S/079/62/032/009/008/011
1048/1242

AUTHORS: Simanov, V.A. and Nemtsov, M.S.

TITLE: Investigation of the alkaline oxidation of isopropylbenzene. IV. Effect of the by-products of the oxidation of isopropylbenzene

PERIODICAL: Zhurnal obshchey khimii, v.32, no.9, 1962, 2919-2925

TEXT: This is the fourth part of a paper whose first, second, and third parts appeared in Zhurnal obshchey khimii (v. 30, 1960, pp. 1429 and 2153; v. 32, 1962, p. 2914); this part deals with the effect of the most important by-products of the oxidation of isopropylbenzene on the rate of the process at 110°C. The rate of oxidation of isopropylbenzene in the presence of 0.001 - 0.1 wt % phenol was much lower than in the absence of this reagent, and the inhibiting effect of phenol was proportional to its concentration. The effect of phenol is attributed to its interaction with free radicals and the resulting decrease in free-radicals concentration in the reaction mixture. The addition of 4 moles of NaOH per mole phenol,

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